

June 10, 2002

Mr. Paul Newport
Delco Remy America, Inc.
4640 Pendleton Avenue
Anderson, IN 46013

Re: **095-15328-00109**
First Significant Permit Revision to
MSOP 095-11199-00109

Dear Mr. Newport:

Delco Remy America, Inc. was issued a minor source operating permit on December 13, 1999 for a stationary engine alternator and other engine component manufacturing operation. A letter requesting a revision to this permit was received on February 28, 2002. Pursuant to the provisions of 326 IAC 2-6.1-6 a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of adding four (4) new trickle varnish lines to their existing source.

The following construction conditions are applicable to the proposed project:

1. The data and information supplied with the application shall be considered part of this permit revision approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Pursuant to IC 13-15-5-3, this approval to construct becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-6.1-6, the minor source operating permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this permit revision which includes this letter, the attached operating conditions applicable to these emission units, and revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Scott Fulton, at OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Scott Fulton or extension (3-5691), or dial (317) 233-5691.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

SDF

cc: File - Madison County
U.S. EPA, Region V
Madison County Health Department
Anderson Office of Air Management
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

**NEW SOURCE CONSTRUCTION PERMIT
and MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR QUALITY
and ANDERSON OFFICE OF AIR MANAGEMENT**

**Delco Remy America, Inc.
4640 Pendleton Avenue
Anderson, Indiana 46013**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 095-11199-00109	Date Issued: December 13, 1999
First Significant Permit Revision No.: 095-15328-00109	Affected Pages: 3, 14, and 15
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 10, 2002

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and the Anderson Office of Air Management. The information describing the source contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary engine alternator and other engine component manufacturing operation.

Authorized Individual: Jeff Copeland
Source Address: 4640 Pendleton Avenue, Anderson, Indiana 46013
Mailing Address: 2902 Enterprise Drive, Anderson, Indiana 46013
Phone Number: 765-683-3826
SIC Code: 3714
County Location: Madison
County Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD Rules

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) Two (2) electric epoxy trickle ovens, each rated at 72 kilowatts (Kw), capable of coating a total of 100 metal stators per hour, each exhausting through one (1) stack, identified as E-1 and E-2.
- (b) Two (2) varnish dip tanks, which are capable of coating a total of 600 metal rotors per hour, each exhausting through one (1) stack, identified as E-3 and E-4. This facility includes two (2) electric ovens, each rated at 65 Kw.
- (c) One (1) rust inhibitor dip tank, capable of coating 600 metal rotors per hour, exhausting through one (1) stack, identified as E-5.
- (d) One (1) epoxy dip tank, which is capable of coating 300 metal coils per hour. This facility includes one (1) electric oven, rated at 108 Kw, exhausting through one (1) stack, identified as E-6.
- (e) One (1) trickle varnish rotor line, identified as VRA, applying varnish #s 9183 or 6180 at a maximum rate of 211.76 parts per hour, with emissions exhausted through Stack 001.
- (f) One (1) trickle varnish rotor line, identified as VRC, applying varnish # 9183 at a maximum rate of 200 parts per hour, with emissions exhausted through Stack 003.
- (g) One (1) trickle varnish stator line, identified as VSB, applying varnish #s 5180 or 9183 at a maximum rate of 211.76 parts per hour, with emissions exhausted through Stack 003.
- (h) One (1) trickle varnish stator line, identified as VSD, applying varnish # 9183 at a maximum rate of 189.47 parts per hour, with emissions exhausted through Stack 004.
- (i) Two (2) natural gas-fired space heaters, each rated at 0.115 million (MM) British thermal units (Btu) per hour.
- (j) Ten (10) natural gas-fired space heaters, each rated at 0.485 MMBtu per hour.
- (k) A welding operation with a maximum welding wire consumption rate of 0.28 pounds per hour.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions unit Description

- (a) Two (2) electric epoxy trickle ovens, each rated at 72 kilowatts (Kw), capable of coating a total of 100 metal stators per hour, each exhausting through one (1) stack, identified as E-1 and E-2.
- (b) Two (2) varnish dip tanks, which are capable of coating a total of 600 metal rotors per hour, each exhausting through one (1) stack, identified as E-3 and E-4. This facility includes two (2) electric ovens, each rated at 65 Kw.
- (c) One (1) rust inhibitor dip tank, capable of coating 600 metal rotors per hour, exhausting through one (1) stack, identified as E-5.
- (d) One (1) epoxy dip tank, which is capable of coating 300 metal coils per hour. This facility includes one (1) electric oven, rated at 108 Kw, exhausting through one (1) stack, identified as E-6.
- (e) One (1) trickle varnish rotor line, identified as VRA, applying varnish #s 9183 or 6180 at a maximum rate of 211.76 parts per hour, with emissions exhausted through Stack 001.
- (f) One (1) trickle varnish rotor line, identified as VRC, applying varnish # 9183 at a maximum rate of 200 parts per hour, with emissions exhausted through Stack 003.
- (g) One (1) trickle varnish stator line, identified as VSB, applying varnish #s 5180 or 9183 at a maximum rate of 211.76 parts per hour, with emissions exhausted through Stack 003.
- (h) One (1) trickle varnish stator line, identified as VSD, applying varnish # 9183 at a maximum rate of 189.47 parts per hour, with emissions exhausted through Stack 004.

Emission Limitations and Standards

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings applied to metal stators, metal rotors, and metal coils used to manufacture engine alternators shall be limited to:

Coatings	Limit (pounds of VOC/gallon of coating less water delivered to the applicator)
Extreme Performance Coat	3.5

- (b) Solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Compliance Determination Requirements

D.1.2 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test these emissions units by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM or the Anderson Office of Air Management, compliance with the VOC limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.3 Volatile Organic Compounds (VOC)

- (a) Compliance with the VOC content and usage limitations contained in Condition D.1.1 shall be determined on a monthly basis pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, and the Anderson Office of Air Management reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (b) Compliance with condition D.1.1 will be based on the volume weighted average VOC content of all coatings applied to the metal rotors, stators, and coils. The volume weighted average of the coatings shall be determined using the following equation:

lb VOC/gal coating less water =

$$\frac{3[(\text{coating density (lb/gal)} * \text{wt. \% organics} * \text{gal. coating/unit}) / ((1 - \text{vol. \% water}) * (\text{coating density} / \text{water density}))]}{3 (\text{gal. coating/unit})}$$

Compliance Monitoring Requirements

D.1.4 VOC Emissions

The owner or operator shall, for each line:

- (a) list all coatings applied during that month,
- (b) record the VOC content of each coating, as determined in Condition D.1.3, and
- (c) record the volume weighted average VOC, as determined in Condition D.1.3.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.5 Record Keeping Requirements

To document compliance with Condition D.1.1, the Permittee shall, on a monthly basis, maintain records of the information required in Condition D.1.4, copies of each coating's as supplied VOC data sheets, and all supporting calculations performed as a result of the requirements of Condition D.1.3.

All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**Indiana Department of Environmental Management
Office of Air Quality**

**Technical Support Document (TSD) for a Significant Permit Revision
to a Minor Source Operating Permit (MSOP)**

Source Background and Description

Source Name:	Delco Remy America, Inc.
Source Location:	4640 Pendleton Avenue, Anderson, Indiana 46013
County:	Madison
SIC Code:	3714
MSOP Permit No.:	095-11199-00109
Permit Issuance Date:	December 13, 1999
Significant Permit Revision No.:	095-15328-00109
Permit Reviewer:	SDF

The Office of Air Quality (OAQ) has reviewed a significant permit revision application from Delco Remy America, Inc. relating to the operation of their existing surface coating and welding operation.

Request

On February 28, 2002, Delco Remy America, Inc. submitted an application to add four trickle varnish lines to their existing Anderson plant.

The modification consists of:

- (a) one (1) trickle varnish rotor line, identified as VRA, applying varnish #s 9183 or 6180 at a maximum rate of 211.76 parts per hour, with emissions exhausted through Stack 001,
- (b) one (1) trickle varnish rotor line, identified as VRC, applying varnish # 9183 at a maximum rate of 200 parts per hour, with emissions exhausted through Stack 003,
- (c) one (1) trickle varnish stator line, identified as VSB, applying varnish #s 5180 or 9183 at a maximum rate of 211.76 parts per hour, with emissions exhausted through Stack 003, and
- (d) one (1) trickle varnish stator line, identified as VSD, applying varnish # 9183 at a maximum rate of 189.47 parts per hour, with emissions exhausted through Stack 004.

Existing Approvals

The source was issued 095-11199-00109 on December 13, 1999. The source has been operating under this permit since issuance.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the significant permit revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application.

Emission Calculations

UNRESTRICTED POTENTIAL TO EMIT DUE TO THE MODIFICATION:

The existing source consists of the existing coating units, natural gas fired space heaters, and a welding operation.

Adding the proposed varnish lines will not affect the existing source coating units or space heaters, but will debottleneck the welding process.

The proposed varnish lines will generate VOC emissions. Since the varnish of the proposed lines will be applied via dip coating with 100% transfer efficiency, no PM or PM10 emissions will be generated. Delco claims that there will be no HAP emissions.

Therefore, the following calculations determine the VOC emissions from the proposed varnish lines and the increased emissions from the debottlenecked welding process.

All pollutant emissions are uncontrolled.

Varnish Lines:

The following calculations determine the VOC emissions from the proposed varnish lines based on the worst case varnish applied, the maximum hourly throughput, the respective VOC fractions, emissions before controls, and 8760 hours of operation.

(a) VRA:	$211.76 \text{ parts/hr} * 0.007 \text{ lb VOC/part} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb}$	=	6.49 tons VOC/yr
	$211.76 \text{ parts/hr} * 0.006 \text{ lb VOC/part} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb}$	=	5.57 tons VOC/yr
(b) VSB:	$211.76 \text{ parts/hr} * 0.017 \text{ lb VOC/part} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb}$	=	15.77 tons VOC/yr
	$211.76 \text{ parts/hr} * 0.012 \text{ lb VOC/part} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb}$	=	11.13 tons VOC/yr
(c) VRC:	$200.00 \text{ parts/hr} * 0.003 \text{ lb VOC/part} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb}$	=	2.63 tons VOC/yr
(d) VSD:	$189.47 \text{ parts/hr} * 0.009 \text{ lb VOC/part} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb}$	=	<u>7.47 tons VOC/yr</u> 32.36 tons VOC/yr

Welding Operations:

The existing source welding process throughput is based on a maximum rate of 600 units. The proposed varnish lines will be processing an additional 813 units. The fraction increase in production is estimated to be $[(813 \text{ units}/600 \text{ units}) - 1.00]$, or 0.36.

The emissions due to the debottlenecked welding process is estimated to be 0.36 times the existing welding process UPTE, or 0.01 tons PM(PM10)/yr.

$$0.36 * 0.03 = 0.01 \text{ tons PM(PM10)/yr}$$

SOURCE UNRESTRICTED POTENTIAL TO EMIT AFTER THE PROPOSED MODIFICATION:

The source UPTE after the proposed modification is the sum of the existing source UPTE plus the UPTE due to the proposed modification.

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Proposed Source	0.01	0.01	-	-	32.36	-	-	-
Existing Source	0.07	0.20	0.01	2.23	34.95	1.87	4.80	4.84
Total	0.08	0.21	0.01	2.23	67.31	1.87	-	4.84

SOURCE EMISSIONS AFTER CONTROLS, AFTER THE PROPOSED MODIFICATION:

The existing source emissions and the emissions from the proposed equipment are uncontrolled. Thus, the source emissions after controls, after the modification are equal to the source UPTE, after the modification.

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Proposed Source	0.01	0.01	-	-	32.36	-	-	-
Existing Source	0.07	0.20	0.01	2.23	34.95	1.87	4.80	4.84
Total	0.08	0.21	0.01	2.23	67.31	1.87	-	4.84

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls due to the modification based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.01
PM-10	0.01
SO ₂	-
VOC	32.36
CO	-
NO _x	-

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

All criteria pollutant UPTe are less than 100 tons/yr, no single HAP emissions exceed 10 tons/yr, and the combined HAP emissions do not exceed 25 tons/yr, but the VOC emissions are greater than 25 tons per year. Therefore, the modification qualifies as a Significant Permit Revision, pursuant to 326 IAC 2-6.1-6(i)(1)(E).

County Attainment Status

The source is located in Madison County.

Pollutant	Status
PM ₁₀	attainment or unclassifiable
SO ₂	attainment or unclassifiable
NO ₂	attainment or unclassifiable
Ozone	attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Madison County has been designated as attainment or unclassifiable for ozone. Therefore, the VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2 and 40 CFR 52.21.

(b) Madison County has been classified as attainment or unclassifiable for other all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Comb. HAPs (tons/yr)
Existing Source	0.07	0.20	0.01	2.23	34.95	1.87	4.84

PSD Major Source Levels	250	250	250	250	250	250	-
Part 70 Major Source Levels	-	100	100	100	100	100	10/25

- (a) The existing source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.
- (b) This existing source is not a Title V major stationary source because no criteria pollutant potential to emit (PTE) exceeds the applicable level of 100 tons/yr, no single hazardous air pollutant PTE exceeds the applicable levels of 10 tons/yr, and the combined hazardous air pollutant PTE does not exceed the applicable level of 25 tons/yr.

Federal Rule Applicability

New Source Performance Standards (NSPS):

There are no New Source Performance Standards (326 IAC 12 and 40 CFR Part 60) that apply to the proposed source.

National Emission Standards for Hazardous Air Pollutants (NESHAPs):

There are no National Emission Standards for Hazardous Air Pollutants (326 IAC 14 and 20 and 40 CFR Part 61 and 63) that apply to this proposed source.

State Rule Applicability

Entire State Rule Applicability:

326 IAC 1-6-3 (Preventive Maintenance Plan):

The source is still not required to have a preventive maintenance plan because after the proposed modification, all varnish coatings will still be applied with 100% transfer efficiency (there are no PM/PM10 emissions from these emission units), there will still be no control devices associated with any emission generating units, and there will still be no units with actual PM or VOC emissions exceeding 25 tons per year.

326 IAC 2-4.1 (HAP Major Sources)

This source is still not subject to the requirements of 326 IAC 2-4.1 because still no single hazardous air pollutant (HAP) emissions exceed 10 tons per year, and the combined HAP emissions are less than 25 tons per year.

326 IAC 2-6 (Emission Reporting)

This source is still not subject to 326 IAC 2-6 (Emission Reporting), because it is still not located in any of the listed counties and the applicable source emissions after the proposed modification are still less than the applicable level of 100 tons per year.

326 IAC 2-7 (Part 70 Permit Program)

The source after the proposed modification is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is still less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is still less than 10 tons per year, and
- (c) any combination of HAPs is still less than 25 tons/year.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

Individual State Rule Applicability

326 IAC 8-2-4 (Coil Coating Operations)

This rule establishes emission limitations for coating of any flat metal sheets or strips that come in rolls or coils. This rule still does not apply to the coil surface coating operation at this source because the coils still are already in the finished product stage when coated. The coils are not in the form of flat metal sheets or strips.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at each varnish line shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Pursuant to 326 IAC 8-1-2(a)(10)(A) (Compliance Methods), compliance with this rule will be based on the monthly volume weighted average VOC content of all coatings applied to the metal rotors, stators, and coils, as specified in . The volume weighted average of the coatings shall be determined using the following equation:

lb VOC/gal coating less water =

$$\frac{3[(\text{coating density (lb/gal)} * \text{wt. \% organics} * \text{gal. coating/unit}) / ((1 - \text{vol. \% water}) * (\text{coating density} / \text{water density}))]}{3 \text{ (gal. coating/unit)}}$$

326 IAC 6-3-2 (Process Operations)

Pursuant to CP 095-5813-00073, issued on October 9, 1996, the particulate matter (PM) emissions from the Metal Inert Gas (MIG) welding operation shall not exceed 0.017 pound per hour, based on a process weight rate of 0.56 pound per hour. This limitation was based on the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where: E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Potential PM emissions from the MIG welding operation are 0.007 pound per hour, therefore, this facility is in compliance with this limit. There are no emissions from the Tungsten Inert Gas (TIG) welding operation because no filler metal is used to fuse/weld two metals together.

Proposed Changes:

The following are the changes to the existing MSOP that are necessary to incorporate the proposed varnish lines. New language is in **bold** type and deleted language is ~~struck out~~.

1. The unit description of Condition A.2 shall be amended as follows to incorporate the 4 proposed varnish lines.

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) Two (2) electric epoxy trickle ovens, each rated at 72 kilowatts (Kw), capable of coating a total of 100 metal stators per hour, each exhausting through one (1) stack, identified as E-1 and E-2.
- (b) Two (2) varnish dip tanks, which are capable of coating a total of 600 metal rotors per hour, each exhausting through one (1) stack, identified as E-3 and E-4. This facility includes two (2) electric ovens, each rated at 65 Kw.
- (c) One (1) rust inhibitor dip tank, capable of coating 600 metal rotors per hour, exhausting through one (1) stack, identified as E-5.
- (d) One (1) epoxy dip tank, which is capable of coating 300 metal coils per hour. This facility includes one (1) electric oven, rated at 108 Kw, exhausting through one (1) stack, identified as E-6.
- (e) One (1) trickle varnish rotor line, identified as VRA, applying varnish #s 9183 or 6180 at a maximum rate of 211.76 parts per hour, with emissions exhausted through Stack 001.**
- (f) One (1) trickle varnish rotor line, identified as VRC, applying varnish # 9183 at a maximum rate of 200 parts per hour, with emissions exhausted through Stack 003.**
- (g) One (1) trickle varnish stator line, identified as VSB, applying varnish #s 5180 or 9183 at a maximum rate of 211.76 parts per hour, with emissions exhausted through Stack 003.**
- (h) One (1) trickle varnish stator line, identified as VSD, applying varnish # 9183 at a maximum rate of 189.47 parts per hour, with emissions exhausted through Stack 004.**
- (ei) Two (2) natural gas-fired space heaters, each rated at 0.115 million (MM) British thermal units (Btu) per hour.
- (fj) Ten (10) natural gas-fired space heaters, each rated at 0.485 MMBtu per hour.
- (gk) A welding operation with a maximum welding wire consumption rate of 0.28 pounds per hour.**

~~Note: These previously existing emission units are being relocated from an existing manufacturing plant to a new building at the above listed location.~~

2. The unit description of Section D.1 shall be amended as follows to incorporate the 4 proposed varnish lines.

Emissions unit Description

- (a) Two (2) electric epoxy trickle ovens, each rated at 72 kilowatts (Kw), capable of coating a total of 100 metal stators per hour, each exhausting through one (1) stack, identified as E-1 and E-2.
- (b) Two (2) varnish dip tanks, which are capable of coating a total of 600 metal rotors per hour, each exhausting through one (1) stack, identified as E-3 and E-4. This facility includes two (2) electric ovens, each rated at 65 Kw.
- (c) One (1) rust inhibitor dip tank, capable of coating 600 metal rotors per hour, exhausting through one (1) stack, identified as E-5.
- (d) One (1) epoxy dip tank, which is capable of coating 300 metal coils per hour. This facility includes one (1) electric oven, rated at 108 Kw, exhausting through one (1) stack, identified as E-6.
- (e) One (1) trickle varnish rotor line, identified as VRA, applying varnish #s 9183 or 6180 at a maximum rate of 211.76 parts per hour, with emissions exhausted through Stack 001.**
- (f) One (1) trickle varnish rotor line, identified as VRC, applying varnish # 9183 at a maximum rate of 200 parts per hour, with emissions exhausted through Stack 003.**
- (g) One (1) trickle varnish stator line, identified as VSB, applying varnish #s 5180 or 9183 at a maximum rate of 211.76 parts per hour, with emissions exhausted through Stack 003.**
- (h) One (1) trickle varnish stator line, identified as VSD, applying varnish # 9183 at a maximum rate of 189.47 parts per hour, with emissions exhausted through Stack 004.**

- 3. No changes to Condition D.1.1 are required. Even though the new varnish coating lines are subject to the 326 IAC 8-2-9 limits specified in Condition D.1.1, no changes are required because Condition D.1.1 is worded to already include all rotor and stator varnish lines.
- 4. No changes to the testing requirements of Condition D.1.2 are necessary because adding the proposed varnish lines does not trigger any testing requirements.
- 5. No changes to the compliance determination requirements of Condition D.1.3 are required because volume weighted averaging is still allowed when determining the VOC contents that will be compared to the 326 IAC 8-2-9 VOC content limits established in Condition D.1.1. However, all references to the Office of Air "Management (OAM)" shall be changed to the Office of Air "Quality (OAQ)".

D.1.3 Volatile Organic Compounds (VOC)

- (a) Compliance with the VOC content and usage limitations contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAMQ, and the Anderson Office of Air Management reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- 6. The following compliance monitoring requirement shall be added as new Condition D.1.4, requiring the owner or operator to record the VOC contents determined as a result of the requirements of Condition D.1.3.

The owner or operator shall, for each line:

- (a) list all coatings applied during that month,**
- (b) record the VOC content of each coating, as determined in Condition D.1.3, and**
- (c) record the volume weighted average VOC, as determined in Condition D.1.3.**

7. Existing Condition D.1.4 shall be deleted, with the requirements of this condition being added to Condition D.1.3.

D.1.4 VOC Emissions

~~Compliance with Condition D.1.1 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.~~

D.1.3 Volatile Organic Compounds (VOC)

- (a) Compliance with the VOC content and usage limitations contained in Condition D.1.1 shall be determined **on a monthly basis** pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, and the Anderson Office of Air Management reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (b) Compliance with condition D.1.1 will be based on the volume weighted average VOC content of all coatings applied to the metal rotors, stators, and coils. The volume weighted average of the coatings shall be determined using the following equation:

lb VOC/gal coating less water =

$$\frac{3[(\text{coating density (lb/gal)} * \text{wt. \% organics} * \text{gal. coating/unit}) / ((1 - \text{vol. \% water}) * (\text{coating density} / \text{water density}))]}{3 \text{ (gal. coating/unit)}}$$

8. The record keeping requirements shall be amended to reference the VOC content limits only. The volume weighted averaging shall be limited to each line only, as allowed by 326 IAC 8-2-9.

D.1.5 Record Keeping Requirements

- ~~(a) To document compliance with Condition D.1.1, the Permittee shall, maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken on a monthly basis, and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.~~

~~(1) The amount and maintain records of the VOC content information, as supplied by the manufacturer of each coating, thinner, and solvent used required in Condition D.1.4, copies of each coating's as supplied VOC data sheets, and all supporting calculations performed as a result of the requirements of Condition D.1.3. The Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;~~

~~(2) Monthly emissions in pounds of VOC; and~~

~~(3) The calculated monthly volume weighted average VOC content of the coatings as applied.~~

- ~~(b) All records shall be maintained in accordance with Section C - General Record Keeping~~

Requirements, of this permit.
No other changes to the permit are required.

Conclusion

The proposed varnish coating lines shall be constructed and operated according to the requirements specified in the attached proposed Significant Permit Revision (095-15328-00109) and the applicable requirements specified in MSOP No. 033-14677-00071.